



L.T.F

LED Driver - DS Series

60W DC Class 2 Power Supply DS60W Aluminum Case Series 100-277V



Efficiency	higher than 85%
Power Factor	>95%
Case TC*	85C° Max
Protection	Input / Output
Storage	-40°C / +85C°
Humidity	95% RH max
IP Rating	IP 66
Class	Class 2 power supply
Dimming	ELV, Triac Dimmable
Optional Dimming	0-10V Dimming



RoHS



FCC Part 15
Class B compliant



FEATURES

- UL8750, EN61347, UL1310, UL48, cUL, CE, TUV, KAMA, CQC compliant
- FCC Part 15/18 Class B and EN55015 compliant
- Meet the RoHS directive; IP66 compliant,
- Suitable for high-temperature, high-dust location
- Suitable for indoor or outdoor applications
- Suitable in standard electrical junction boxes
- Compact, lightweight
- Single output, ranged from 4VDC up to 114VDC
- Active PFC reduces power consumption
- Isolation between primary and secondary
- Exceeds California Title 24 requirements

ENVIRONMENTAL SPECIFICATIONS

1. Operating temperature: -30 to +60°C
2. Storage temperature range: -40 to +85°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: Free air cooling Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s
7. MTBF: 560,000 hours at full load and 40°C ambient conditions
8. Life 120,000 hours at full load and 40°C ambient conditions
9. 8. LIFE: 120,000 hours at full load and 40°C ambient conditions
10. 9. Warranty: 30,000 hours at full load and 40°C ambient conditions
11. EMC:

Compliant to CISPR 22 CLASS B, CISPR 14-1 CLASS B, GB4343. 1-2003, GB17625.1-2003

- Continuous interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
- Intermittent interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
- Interference power test conforming to GB4343-2003+A1, CISPR 14-1:1997, EN55014-1:1997-6
- Harmonic currents test conforming to GB4343-2003+A1, CISPR 14-1:EN 61000-3-2:1995
- RF Electromagnetic Field Immunity test conforming to GB/T13926.3, IEC61000-4-3, PrEN55014-2 Section 6.5
- Electrical fast transient/burst immunity test conforming to GB/T13926.4, IEC61000-4-4, PrEN55014-2 section 6.2
- Voltage dips and short interrupts immunity test conforming to IEC61000-4-11
- Voltage variations immunity test conforming to IEC61000-4-11
- Electrostatic discharge immunity test conforming to IEC61000-4-11

* Under confirmed thermal condition



ELECTRICAL SPECIFICATIONS

- Input range: 90 to 305VAC
- Frequency: 47- 63HZ
- Power Factor: > 95% at full load.
- Inrush current: < 30A at 25C, 230V, cold start.
- Input current: 0.75A at 120V
- Efficiency: Up to 92% typical at 230Vac Full Load.
- Maximum power: 60W
- Load regulation accuracy: $\pm 4\%$, Current accuracy: $\pm 3\%$
- Start-up delay: 1000 ms at Worst case.
- Turn-on overshoot in the output current: < 10%.
- Ripple & Noise: < 20% Peak-peak 20MHz Bandwidth.
- Optional DC Dimming control: 0-10Vdc, 2mA, 2-wire.
- Optional RD Dimming control: 3-wire 50K Ω Resistance Dimming.
- Leakage current: 400uA (typical).
- Hold up time: half cycle.
- Output over-voltage protection function: Less than 1.3 times the maximum output voltage.
- Output over-current protection: Less than 1.1 times the maximum output current.
- Output short circuit protection: Unlimited short-circuit, or long-term short-circuit, self-recovery after withdrawal.
- Energy Star: No-load power consumption less than the fixed type constant current 0.5W (at 120V input).

Constant Current						
Model #	Output Voltage Range	Output Constant Current	Current Accuracy	Power Factor	Output Power	Typical Efficiency
DS60W0350C	56-170V DC	350mA	$\pm 3\%$	95%	60W	92%
DS60W0400C	45-134V DC	400mA	$\pm 3\%$	95%	60W	92%
DS60W0550C	36-110V DC	550mA	$\pm 3\%$	95%	60W	91%
DS60W0700C	28-86V DC	700mA	$\pm 3\%$	95%	60W	91%
DS60W1050C	19-58V DC	1050mA	$\pm 3\%$	95%	60W	91%
DS60W1250C	16-48V DC	1250mA	$\pm 3\%$	95%	60W	91%
DS60W1670C	12-36V DC	1670mA	$\pm 3\%$	95%	60W	90%
DS60W2300C	9-27V DC	2300mA	$\pm 3\%$	95%	60W	90%
DS60W2500C	8-24V DC	2500mA	$\pm 3\%$	95%	60W	90%
DS60W2720C	7-22V DC	2720mA	$\pm 3\%$	95%	60W	89%
DS60W3000C	7-20V DC	3000mA	$\pm 3\%$	95%	60W	89%
DS60W3330C	6-18V DC	3330mA	$\pm 3\%$	95%	60W	88%
DS60W4000C	5-15V DC	4000mA	$\pm 3\%$	95%	60W	88%
DS60W5000C	4-12V DC	5000mA	$\pm 3\%$	95%	60W	87%



Constant Voltage							
Model #	Output Voltage Current	Maximum Output Current	Minimum Output Current	Voltage Accuracy	Power Factor	Output Power	Typical Efficiency
DS60W170V	170V DC	350mA	20mA	±3%	95%	60W	92%
DS60W134V	134V DC	400mA	25mA	±3%	95%	60W	92%
DS60W110V	110V DC	550mA	40mA	±3%	95%	60W	91%
DS60W86V	86V DC	700mA	60mA	±3%	95%	60W	91%
DS60W58V	58V DC	1050mA	80mA	±3%	95%	60W	91%
DS60W48V	48V DC	1250mA	100mA	±3%	95%	60W	91%
DS60W36V	36V DC	1670mA	120mA	±3%	95%	60W	90%
DS60W27V	27V DC	2300mA	140mA	±3%	95%	60W	90%
DS60W24V	24V DC	2500mA	150mA	±3%	95%	60W	90%
DS60W22V	22V DC	2720mA	180mA	±3%	95%	60W	89%
DS60W20V	20V DC	3000mA	200mA	±3%	95%	60W	89%
DS60W18V	18V DC	3330mA	230mA	±3%	95%	60W	88%
DS60W15V	15V DC	4000mA	260mA	±3%	95%	60W	88%
DS60W12V	12V DC	5000mA	300mA	±3%	95%	60W	87%

Note: Typical power factor measured at 220VAC input, full load. Maximum efficiency measured at 220VAC input, full load.

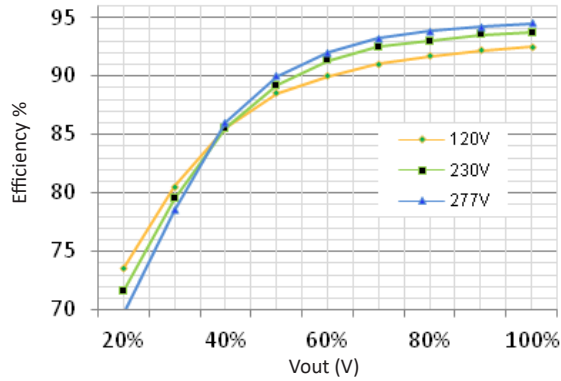
DIMMING OPTIONS

1. Optional DC Dimming control:

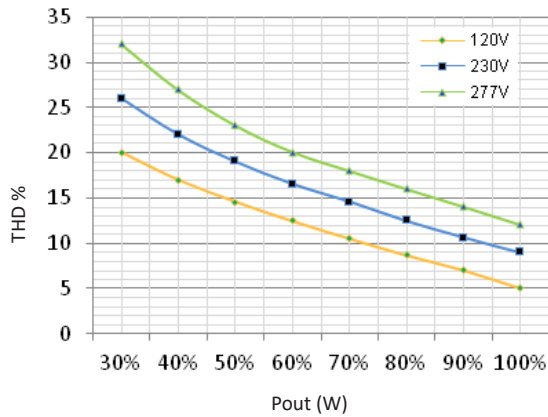
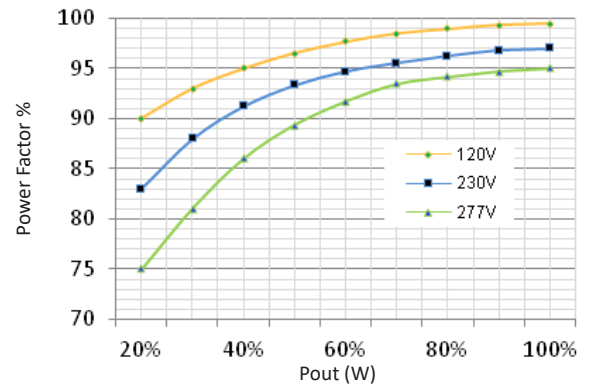
- a. 0-10V DC Dimming Mode.
- b. Input Voltage Range 0-10Vdc, Output constant current Adjustable range: 10%-MAX. When input >10V , Constant current output for maximum value. When input ≤ 0V (Include input open circuit), Constant current output for 10%.
- c. Input impedance 5KΩ, dimming response time : 20ms.
- d. Input Current: MAX. 2mA.

TECHNICAL SPECS.

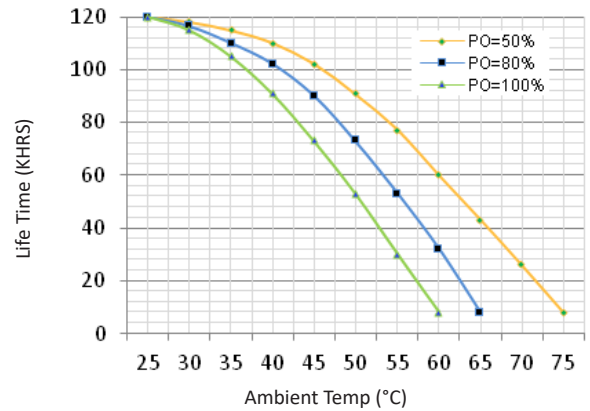
Efficiency vs. Vout at 80°C case



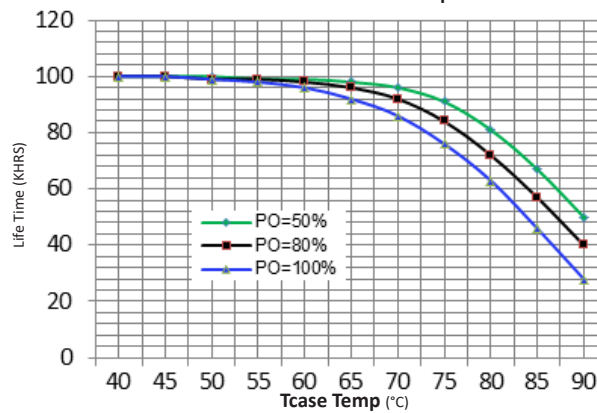
PF vs. Pout at 80°C case



Life Time vs. Ambient Temp



Life Time vs. Tcase Temp





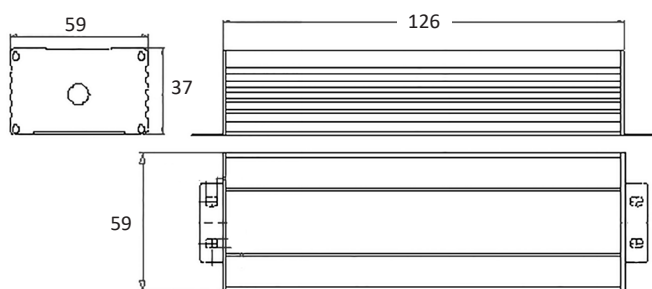
INSTALLATION SPECIFICATIONS

- Aluminum metal enclosure, Used with thermal conductivity and flame retardant glue potting.
- AC input for connection the three core ANSI/UL1015/AWG18 temperature 105 °C core copper wire connection, Cable Length: 150mm, Stripping on the tin: 10mm.
- DC output for connection the two core ANSI/UL1569/AWG14 temperature 105 °C core copper wire, Cable Length: 150mm, Stripping on the tin: 10mm.
- The dimmer control input is the two copper wires, ANSI/UL1569/AWG24 & temperature 105 ° C, Cable Length: 150mm, Stripping on the tin: 10mm.
- Where: 0-10V input — Purple wire, GND — Grey wire.
- This product has two $\Phi 3.6$ mm mounting holes.

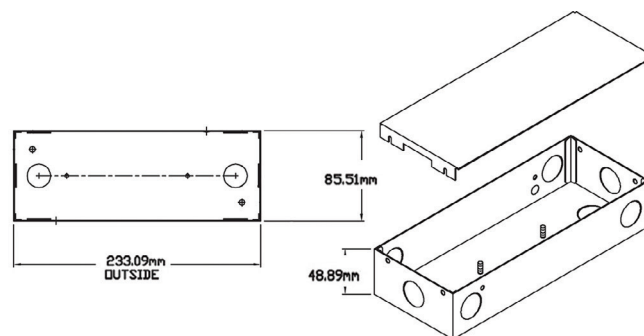
MECHANICAL SPECS.

Available Form Factors	Dimensions
"L12"	242X20X29mm
"L19"	126x59x37mm
Remote Enclosure	
"G2"	233.1X85.5X48.9mm
"G3"	280X103X56mm

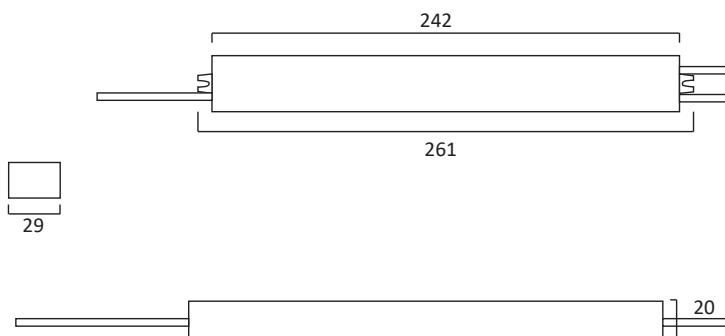
L19



G2: -RE MODELS



L12



G3 : -REO MODELS

